



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,182	05/06/2005	Shinya Nakajima	10873.1699USWO	5197
52835	7590	11/21/2006	EXAMINER	
HAMRE, SCHUMANN, MUELLER & LARSON, P.C. P.O. BOX 2902 MINNEAPOLIS, MN 55402-0902			PUNNOOSE, ROY M	
			ART UNIT	PAPER NUMBER
			2877	

DATE MAILED: 11/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/534,182

Applicant(s)

NAKAJIMA, SHINYA

Examiner

Roy M. Punnoose

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 May 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/2005:9/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the correction sample must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

Art Unit: 2877

pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The limitation "correction sample" is not defined in the specification.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 5 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 5 and 8 are rejected because it is not clear what the "correction sample" represents. The application indicates reference number 6 represents a sample. Is the claimed limitation "correction sample" same as the claimed limitation "sample"? For examination purposes, it is assumed that "correction sample" is the same as "sample."

Claim Rejections - 35 USC § 101

4. The 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 5-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Art Unit: 2877

6. Claim 5 is rejected because it is claiming a non-tangible result. In claim 5, merely calculating the fluorescence intensity of the fluorescence of each fluorescent coloring matter emitted from the sample using a correction coefficient would not appear to be sufficient to constitute a useful, concrete and tangible result, since the outcome of the calculating step has not been used in a disclosed practical application nor made available (in the claim) in such a manner that its usefulness in a disclosed practical application can be realized. See OG Notices: 22 November 2005, "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility".

7. Claims 6-7 are rejected for reasons similar to the reasons of rejection of claim 5 above because they are not claiming a useful, concrete and tangible result and therefore are directed to non-statutory subject matter. Claims 6-7 comprise(s) intermediate step(s) in the method of claim 5.

8. Claim 8 is rejected because it is claiming a non-tangible result. In claim 8, a program for causing a computer to measure a fluorescence intensity of fluorescence of each of a plurality of fluorescent coloring matters would not appear to be sufficient to constitute a useful, concrete and tangible result, since the outcome of the program has not been used in a disclosed practical application nor made available (in the claim) in such a manner that its usefulness in a disclosed practical application can be realized. The claimed program is not stored on anything tangible and appears to be an abstract concept.

Further, in claim 8, merely calculating the fluorescence intensity of the fluorescence of each fluorescent coloring matter emitted from the sample using a correction coefficient would not appear to be sufficient to constitute a useful, concrete and tangible result, since the outcome of the calculating step has not been used in a disclosed practical application nor made available (in the

Art Unit: 2877

claim) in such a manner that its usefulness in a disclosed practical application can be realized. See OG Notices: 22 November 2005, "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility".

9. Claims 9-10 are rejected for reasons similar to the reasons of rejection of claim 8 above because they are not claiming a useful, concrete and tangible result and therefore are directed to non-statutory subject matter. Claims 6-7 comprise(s) intermediate step(s) in the method of claim 8.

The applicant is requested to determine whether the claimed invention complies with the subject matter eligibility requirement of 35 U.S.C. Sec. 101, sentence 3, in the OG Notice from 22 November 2005, which states "In determining whether the claim is for a practical application, the focus is not on whether the steps taken to achieve a particular result are useful, tangible, and concrete, but rather that the final result achieved by the claimed invention is "useful, tangible, and concrete."

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1, 2, 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Modlin et al (US_6,466,316 B2).

12. With regard to claim 1, 2, 5 and 8, Modlin et al (Modlin hereinafter) teaches of an apparatus comprising a light source unit 103a, 103b (see Figure 5) capable of irradiating a

Art Unit: 2877

sample composition 120 with the light having the different wavelengths (see col.3, lines 20-48); a light receiving unit 145a – 145d that receives the transmitted light and outputs an electrical signal corresponding to the intensity (see col.3, lines 49-59) of the received light; and a calculation section 280 (see Figure 10), wherein the calculation section calculates the intensity of the transmitted light or the radiated light for each of the coloring matters using a correction coefficient that is calculated based on an electrical signal output by the light receiving unit when the light source unit irradiates each of a plurality of correction samples with light having a different wavelength from one another (see col.7, lines 28-67); col.10, lines 24-44; col.15, lines 65-67; col.18, lines 56-62; col.19, lines 40-50; col.20, lines 37-40) for measuring the intensity of transmitted light through a sample composition to determine the optical characteristics of said sample composition.

Even though Modlin does not explicitly teach that the sample is mixed with a plurality of coloring matters, in view of Modlin's teaching of a sample "*composition*" it is obvious to one of ordinary skill in the art that composition is a mixture of substances that is inclusive of coloring matter.

13. Claims 3-4, 6-7 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Modlin et al (US_6,466,316 B2) in view of Hazama (US_2002/0090630 A1).

14. With regard to claims 3, 6 and 9, Modlin teach all claim limitations as detailed above, except that the correction coefficient is a matrix in the apparatus for measuring the intensity of transmitted light through a sample composition to determine the optical characteristics of said sample composition.

Art Unit: 2877

Hazama teaches of correction coefficient that is a matrix (see numbered paragraphs [0020] and [0021]) in a system for measuring the intensity of transmitted light through a sample composition to determine the optical characteristics of said sample composition.

In view of Hazama's teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Hazama's teaching into Modlin's apparatus due to the fact that it would provide an alternate way for measuring the intensity of transmitted light through a sample composition to determine the optical characteristics of said sample composition.

15. With regard to claims 4, 7 and 10, Modlin teach of having a light amount monitor 122 (col.10, lines 24-44) that detects a light amount of light emitted by the light source unit and outputs a signal to the calculation section in the apparatus for measuring the intensity of transmitted light through a sample composition to determine the optical characteristics of said sample composition.

Contact/Status Information

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Roy M. Punnoose** whose telephone number is **571-272-2427**. The examiner can normally be reached on 9:00 AM - 5:30 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Gregory J. Toatley, Jr.** can be reached on **571-272-2800 ext.77**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

Art Unit: 2877

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

November 13, 2006


Roy M. Punnoose
Patent Examiner
Art Unit 2877